

# Financial Barriers Remain, But Market Showing Fresh Signs Of Life

With the tax-equity market collapsed, some solar project developers have turned to financing models popular in the wind power industry.

■ Laurae Rossi

**B**attered by the financial crisis, the prospect of construction financing for solar projects came to a near standstill in the past 18 months, when financing from major financial institutions screeched to a halt. However, as the markets begin to recover, new financing opportunities are once again emerging.



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Large, well-known developers in the sector will likely continue to draw on corporate lines of credit to enable them to see their projects constructed. But for everyone else, the financial crisis was a game-changer.

Tax equity - a claim on the tax credits that renewable energy companies receive - was once seen as the major vehicle for financing solar projects.

Consequently, smaller solar companies could find themselves financing future projects by borrowing a page from the wind power playbook and combining a cash grant from the U.S. Treasury provided for under the American Recovery and Reinvestment Act of 2009 (ARRA) with solar construction financing.

Prior to the financial crisis, financial institutions were very interested

in providing solar construction loans for a certain percentage of the solar project's total construction cost, with some portion of such construction cost being borne - and funded up front - by the developer.

Once the project was constructed, such lenders would be repaid via an investment into the project by a tax-equity investor, who would receive either an investment tax credit or a production tax credit.

The tax-equity investor would invest in the project via a sale-leaseback or a partnership flip structure. The amount of the tax-equity investment at the close of construction would be of a value high enough to repay the outstanding construction loans, and once those loans were repaid, the developer could receive access to additional funds from the same financial institution under a revolver loan.

But the disruption in the financial markets has shrunk the tax-equity market, and now, a financing structure with a tax-equity takeout is difficult to obtain because of the few remaining tax-equity players in the market.

## **New debt structures**

With the market now slowly improving, lenders are once again looking to finance solar projects.

But many of the solar financing structures have changed since the crisis. Although lenders remain interested in revisiting construction financing for solar projects, there is currently a focus on providing financing through construction and term loans, as opposed to structuring a construction financing loan repayment through investment by tax equity.

Under a construction and term loan structure, a lender funds a portion of the construction costs, and at operation, the construction debt is amortized over a certain period of time. This arrangement requires the developer to repay the construction loan based on the revenue it receives from selling power under its power purchase agreement.

As a result, the duration of the outstanding debt is longer than that contemplated pre-crisis under a construction loan structure whereby the lender would be taken out at the start of operations by tax equity.

Instead of a debt that lasted only for the period of construction, solar developers are now faced with paying off loans through term financing over five or seven years at higher loan margins than those existing pre-crisis.

The financial crisis has undoubtedly resulted in a shrinking of available debt and equity sources, and therefore, with less supply, prices for both debt and equity skyrocketed at the beginning of this year.

Additionally, both debt and equity participants are able to select the best projects out there - i.e., projects that are very clean from an investor's or financier's perspective. It is almost impossible for any project with potentially problematic issues to receive financing.

Alongside these greater barriers and new financial risks for solar developers, new possibilities have also emerged, thanks to ARRA.

ARRA, which became law earlier this year, essentially provides a cash grant for building renewable energy facilities. The government provides the developer with a payment for a certain percentage of the qualifying costs once the project is completed.

But in addition to incentivizing investment in renewable energy, the cash grant also creates a scenario in which the developer no longer needs to find a tax-equity investor.

### **The wind power model**

Under a financing arrangement that is already gaining popularity in the wind power sector, lenders could provide an "early advance" on the federal grant. In other words, a lender could provide a loan to the developer at the outset of construction for an amount that is approximately 95% of the amount the developer is eligible to receive in federal cash grants.

However, in the windpower sector, the developer is still responsible for funding 20% of project costs up front, and the availability of receiving financing leveraged against the cash grant does not diminish the responsibility of the developer to fund at least 20% of the project cost.

Banks are very focused on requiring the developer to have some skin in the game. Thus, even with a cash-grant financing, the leverage limits are still typically 80/20.

Additionally, numerous precedent conditions are required in loan documentation for a cash-grant loan. Such precedent conditions are mostly linked to the requirements of receiving the cash grant under ARRA in order to ensure that the project will, in fact, qualify for the cash grant and will receive said cash grant within a short period after operations.

For example, lenders will customarily want to receive a cost segregation report with respect to qualifying

costs, approval rights over the cash-grant application, an assignment of the cash grant itself and an indemnity or guaranty from a creditworthy sponsor either guaranteeing this particular tranche of debt or indemnifying the lenders from any recapture risk or disallowance risk. Once the project is completed and the grant is received, the federal funds will be used to repay the cash-grant loan tranche of debt.

Wind power developers already frequently employ a similar financing scheme, and this idea is currently being discussed in conjunction with solar energy projects in legal and business communities.

Most notably, we are seeing discussions between solar developers and financiers for solar construction financings, including providing financing against the cash grant.

However, some barriers to financing remain. The first issue has to do with the lack of precedent when it comes to solar financing; banks must simply become more familiar with the risk associated with solar projects.

Solar is also perceived by banks to be a bigger gamble than wind because it is a newer industry comprising multiple manufacturers and technologies. The wind power sector, in contrast, features just one proven technology - wind turbines - and only a handful of solid manufacturers.

Lastly, project economics are potentially more challenging with typical solar energy projects. At 1 MW to 3 MW - or less - on average, they tend to be as much as 200 times smaller than wind power facilities.

The question of economics has clearly become an increasing salient issue post-crisis.

### **Establishing credibility**

These challenges can be addressed by approaching lenders with a deep portfolio of projects. Putting numerous projects into each financing deal will make the projects more cost-

efficient and, thus, more attractive to lenders.

Even prior to the economic crisis, banks were looking to finance solar projects by funding a portfolio of projects as a way of stemming the risk associated with individually financing relatively small projects.

This arrangement provides banks with reasonable assurances - as a result of this consolidation and cross collateralization - that if one project in the portfolio were to go into default, the assets from the other projects that are still included in the portfolio could be used to repay the loan.

Because solar is a newer industry in construction financing, lenders also need to be shown that the solar developer is established and seasoned. Operating experience is the best way to establish this proof. Multiple projects in a developer's portfolio that are in operation will be important, and the more successfully the developer can show it has implemented projects in the past, along with using a proven type of technology, the better its chances of showing the banks that it is established and seasoned in the industry.

In addition, providing the lender with information and evidence that the selected technologies are proven will also make a deal easier to close.

As has happened with wind power and other emerging technologies, lenders will become increasingly receptive to financing solar projects as they become more comfortable and knowledgeable of the sector. ☞

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